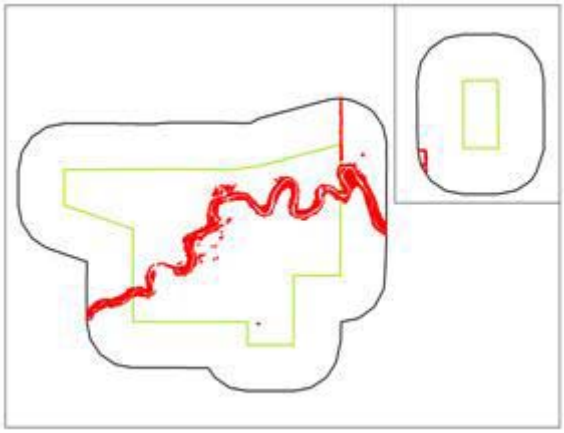
F-GASH *Fraxinus pennsylvanica - Ulmus* spp. *- Celtis occidentalis* Forest
Green Ash - Elm - Common Hackberry Forest

Associations and Alliances
Fraxinus pennsylvanica - *Ulmus* spp. - *Celtis occidentalis* Forest

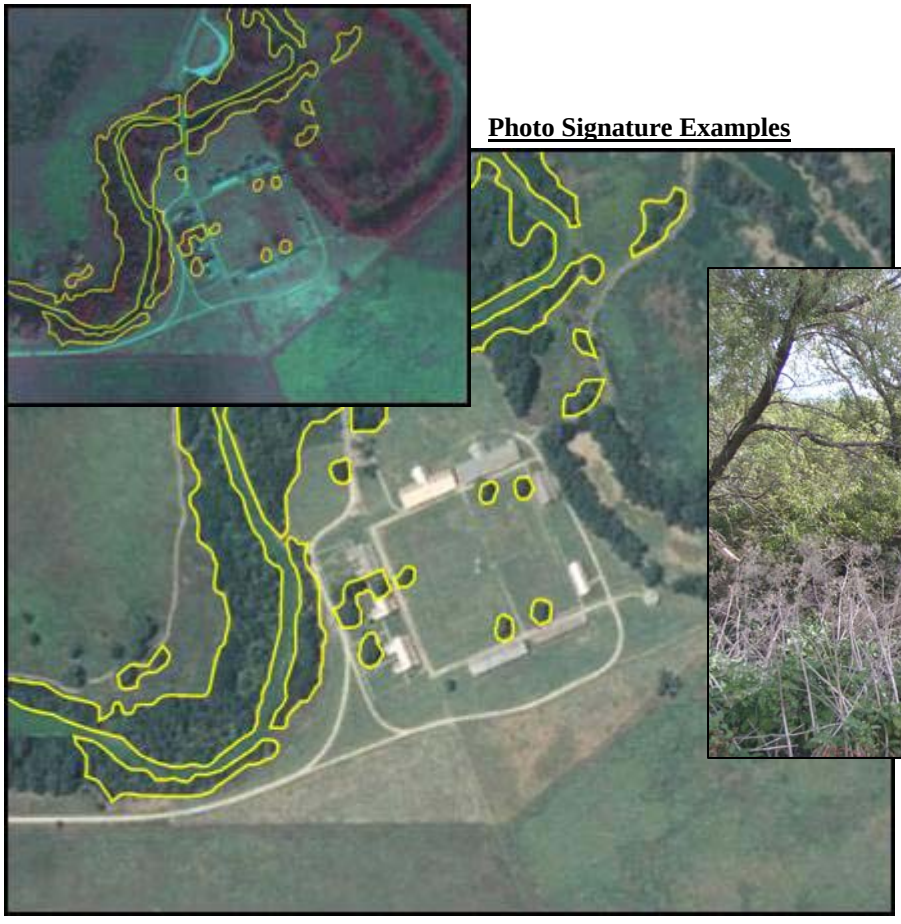
Common Species
Morus alba
Fraxinus pennsylvanica
Acer negundo
Ulmus spp.

Range and Distribution



Description
This is a common forest map class found at FOLS extensively along the Pawnee River. It occurs on banks and terraces on both sides of the river. The dominants of this community are highly variable and some areas contain cottonwood trees that appeared similar on the photos. This similarity may have led to some confusion in the mapping. Small thickets of plum (*Prunus americana*) occurred on slopes toward the top of the bank while black willow (*Salix nigra*) occurred closer to the water. The understory layer included many weedy and invasive species and some woody vines. It is thought that this riparian forest may have been dominated by cottonwoods prior to settlement. No young cottonwood trees were found during the course of the study. On the imagery this type has smaller trees than do cottonwood stands having a representative dark green, textured signature.

Photo Signature Examples



Representative Ground Photo

Fraxinus pennsylvanica -Ulmus spp. - *Celtis occidentalis* Forest

COMMON NAME	Green Ash - Elm - Hackberry Forest	
PHYSIOGNOMIC CLASS	I	Forest
PHYSIOGNOMIC SUBCLASS	I.B	Deciduous forest
PHYSIOGNOMIC GROUP	I.B.2	Cold-deciduous forest
PHYSIOGNOMIC SUBGROUP	I.B.2.N	Natural/semi-natural cold-deciduous forest
FORMATION	I.B.2.N.d	Temporarily flooded cold-deciduous forest
ALLIANCE	*Fraxinus pennsylvanica* - *Ulmus Americana* - *Celtis* (*occidentalis, laevigata*) Temporarily Flooded Forest Alliance	

Association Identifier: CEGL002014

RANGE

Globally

This community is found in the central United States along upper floodplain terraces of rivers and streams and in upland ravine bottoms, ranging from Ohio and Ontario west to Iowa, south to Kansas, and east to Indiana (NatureServe 2006).

Fort Larned National Historic Site

Green Ash - Elm Species Forest occurs at Fort Larned National Historic Site along the Pawnee River. It occurs on banks and terraces on both sides of the river.

ENVIRONMENTAL DESCRIPTION

Globally

Stands occur along upper floodplain terraces of rivers and streams and in upland ravine bottoms. Soils are moderately well-drained to poorly drained.

Fort Larned National Historic Site

This community occurs in soils that are primarily silts, on both steep slopes and level terraces.

MOST ABUNDANT SPECIES

Fort Larned National Historic Site

Strata	Species
Tree	*Morus alba, Acer negundo, Fraxinus pennsylvanica, Ulmus americana, Populus deltoides, Prunus americana, Salix nigra*
Herbaceous	*Conium maculatum, Phytolacca americana, Alliaria petiolata, Elymus virginicus*

CHARACTERISTIC SPECIES

Fort Larned National Historic Site

Strata	Species
Tree	*Morus alba, Fraxinus pennsylvanica, Acer negundo, Ulmus* spp.

VEGETATION DESCRIPTION

Globally

The vegetation has an open to closed tree canopy that is dominated by *Fraxinus pennsylvanica, Celtis occidentalis*, and *Ulmus americana*. Other tree species that may be present include *Juglans nigra, Tilia americana, Acer saccharinum, and Populus deltoides*. *Ulmus rubra* can be part of the subcanopy. The shrub layer in the western part of the range includes *Cornus drummondii, Ribes missouriense, Symphoricarpos occidentalis*, and *Zanthoxylum americanum*, as well as woody vines, such as *Parthenocissus vitacea, Smilax tamnoides (= Smilax hispida), Toxicodendron radicans*, and *Vitis riparia* (NatureServe 2006).

Fort Larned National Historic Site

The dominants of this community are highly variable. *Morus alba, Acer negundo, Fraxinus pennsylvanica, Populus deltoides, Ulmus rubra,* and *Ulmus americana* all dominate some plots. Small thickets of *Prunus americana* occur on slopes toward the top of the bank while *Salix nigra* occurs close to the water. The understory layer includes many weedy and invasive species including *Alliaria petiolata, Elymus virginicus, Conium maculatum,* and *Phytolacca americana*. Woody vines include *Vitis riparia* and *Toxicodendron rydbergii*.

Regional floristics suggest that this riparian forest would have been dominated by *Populus deltoides* prior to settlement. No young cottonwood trees were found during the course of the study.

MAP CODE: T2 (Tree 2)

PLOTS: BE, BF, BJ, BK, BL, BM, BV, DA